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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,098	03/07/2001	Shmuel Shaffer	062891.0545	4922

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Barton E. Showalter  
Baker Botts L. L. P.  
2001 Ross Avenue, Suite 600  
Dallas, TX 75201-2980

EXAMINER

PHUNKULH, BOB A

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/802,098	SHAFFER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Bob A. Phunkulh	2661	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-15,17-26 and 28-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 40-44 is/are allowed.
- 6) ☒ Claim(s) 1-3,5,10-15,17,22-26,28 and 33-39 is/are rejected.
- 7) ☒ Claim(s) 6-9,18-21 and 29-32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/15/2004</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

This communication is in response to applicant's 12/15/2004 amendment(s)/response(s) in the application of **SHMUEL et al.** for "**CODEC SELECTION TO IMPROVE MEDIA COMMUNICATION**" filed 03/07/2001. The amendments/response to the claims have been entered. Claims 4, 16, 27, have been canceled. Claims 41-44 have been added. Claims 1-3, 5-15, 17-26, 28-44 are now pending.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, 11, 13-15, 17, 22, 24-26, 28, 34, 36-39 rejected under 35 U.S.C. 103(a) as being unpatentable over Yargo et al. (US 6,356,545), hereinafter Yargo, in view of Novaro et al. (US 6,108,560), hereinafter Novaro.

Regarding claim 1, Vargo discloses a method for selecting one of a plurality of codecs for communication session, the method comprising the following steps performed by an endpoint participating in the communication session:

receiving a plurality of assessment packets (*receiving a plurality of self-describing data packets in a voice data stream on a receiving end, claim 1*);

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determining at least one network parameter based on the assessment packets  
*(acquiring a voice quality measurement from said self-describing data packets, see  
claim 1);*

selecting one of plurality of codecs using the least one network parameter  
*(dynamically changing codec algorithms in response to said voice quality measurement  
on a packet-to-packet basis for each packet in said plurality of self-describing data  
packets for optimizing the voice quality of the information contained in each said packet,  
claim 1); and*

communicating media using the selected codec.

Vargo fails to explicitly disclose the selecting one of the plurality of codes  
comprises retrieving pre-stored codec selection data that associates that at least one  
network parameter to a corresponding codec; and selecting the corresponding codec  
using the pre-stored codec selection data.

Novaro, on the other hand, discloses providing a lookup table to determining  
which codecs should be employed between at least two radio stations in order to  
maximized the quality of the communication link (see col. 2 line 47 to col. 3 line 11).

Therefore, it would have been obvious to one having ordinary skill in the art at  
the time of invention was made provides the teaching of Novaro in the system taught  
by Vargo for selecting the codecs based on the currently communication channel  
condition provides maximizing the quality of the communication link.

Regarding claim 2, Vargo discloses the assessment packets comprise a plurality of real-time transfer control protocol (RTCP) packets without media (see col. 10 lines 37-43; and col. 11 lines 20-25).

Regarding claim 3, Vargo discloses the at least one network parameter comprises packet loss and delay (*the architecture thereby seeks to attain the best speech quality and lowest latency given the level of data loss over the Internet detected by the system, see col. 2 lines 57-60*).

Regarding claim 5, Vargo discloses monitoring the at least one network parameter; and selecting a new codec from the plurality of codecs in response to a change in the at least one network parameter (*dynamically changing codec algorithms in response to said voice quality measurement on a packet-to-packet basis for each packet in said plurality of self-describing data packets for optimizing the voice quality of the information contained in each said packet, claim 1*).

Regarding claim 11, Vargo discloses the media comprises voice information; and the at least one network parameter comprises a network parameter that impacts voice quality experienced by a user participating in the communication session (see claim 1).

Regarding claim 13, Vargo discloses an apparatus for selecting one of a plurality of codecs for a communication session, comprising:

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a network interface operable to receive a plurality of assessment packets (*a gateway server for receiving a plurality of self-describing data packets in a voice data stream on a receiving end, see claim 11*);

a plurality of codecs (*dynamically changing codec algorithms, claim 11*);  
a processor coupled to the network interface and the codecs, the processor operable to determine at least one network parameter based on the assessment packets, the processor further operable to select one of a plurality of codecs using the at least one network parameter (*dynamically changing codec algorithms in response to said voice quality measurement on a packet-to-packet basis for each packet in said plurality of self-describing data packets for optimizing the voice quality of the information contained in each said packet, and a voice port in said gateway server for acquiring a voice quality measurement from said self-describing data packets received by said gateway server, see claim 11*).

Vargo fails to explicitly disclose the selecting one of the plurality of codes comprises retrieving pre-stored codec selection data that associates that at least one network parameter to a corresponding codec; and selecting the corresponding codec using the pre-stored codec selection data.

Novaro, on the other hand, discloses providing a lookup table to determining which codecs should be employed between at least two radio stations in order to maximized the quality of the communication link (see col. 2 line 47 to col. 3 line 11).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made provides the teaching of Novaro in the system taught

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by Vargo for selecting the codecs based on the currently communication channel condition provides maximizing the quality of the communication link.

Regarding claim 14, Vargo discloses the assessment packets comprise a plurality of real-time transfer control protocol (RTCP) packets without media (see col. 10 lines 37-43; and col. 11 lines 20-25).

Regarding claim 15, Vargo discloses the at least one network parameter comprises packet loss and delay (*the architecture thereby seeks to attain the best speech quality and lowest latency given the level of data loss over the Internet detected by the system, see col. 2 lines 57-60*).

Regarding claim 17, Vargo discloses monitoring the at least one network parameter; and selecting a new codec from the plurality of codecs in response to a change in the at least one network parameter (*dynamically changing codec algorithms in response to said voice quality measurement on a packet-to-packet basis for each packet in said plurality of self-describing data packets for optimizing the voice quality of the information contained in each said packet, claim 1*).

Regarding claim 22, Vargo discloses the media comprises voice information; and the at least one network parameter comprises a network parameter that impacts voice quality experienced by a user participating in the communication session (see claim 1).

Regarding claim 24, Vargo discloses logic encoded in media for selecting one of a plurality of codecs for communication session, the logic comprising the following steps performed by an endpoint participating in the communication session:

receiving a plurality of assessment packets (*receiving a plurality of self-describing data packets in a voice data stream on a receiving end, claim 1*);

determining at least one network parameter based on the assessment packets (*acquiring a voice quality measurement from said self-describing data packets, see claim 1*);

selecting one of plurality of codecs using the least one network parameter (*dynamically changing codec algorithms in response to said voice quality measurement on a packet-to-packet basis for each packet in said plurality of self-describing data packets for optimizing the voice quality of the information contained in each said packet, claim 1*); and

communicating media using the selected codec.

Vargo fails to explicitly disclose the selecting one of the plurality of codes comprises retrieving pre-stored codec selection data that associates that at least one network parameter to a corresponding codec; and selecting the corresponding codec using the pre-stored codec selection data.

Novaro, on the other hand, discloses providing a lookup table to determining which codecs should be employed between at least two radio stations in order to maximized the quality of the communication link (see col. 2 line 47 to col. 3 line 11).



Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made provides the teaching of Novaro in the system taught by Vargo for selecting the codecs based on the currently communication channel condition provides maximizing the quality of the communication link.

Regarding claim 25, Vargo discloses the assessment packets comprise a plurality of real-time transfer control protocol (RTCP) packets without media (see col. 10 lines 37-43; and col. 11 lines 20-25).

Regarding claim 26, Vargo discloses the at least one network parameter comprises packet loss and delay (*the architecture thereby seeks to attain the best speech quality and lowest latency given the level of data loss over the Internet detected by the system, see col. 2 lines 57-60*).

Regarding claim 28, Vargo discloses monitoring the at least one network parameter; and selecting a new codec from the plurality of codecs in response to a change in the at least one network parameter (*dynamically changing codec algorithms in response to said voice quality measurement on a packet-to-packet basis for each packet in said plurality of self-describing data packets for optimizing the voice quality of the information contained in each said packet, claim 1*).

Regarding claim 34, Vargo discloses the media comprises voice information; and the at least one network parameter comprises a network parameter that impacts voice quality experienced by a user participating in the communication session (**see claim 1**).

Regarding claim 26, Vargo discloses an apparatus for selecting one of a plurality of codecs for a communication session, comprising:

means for receiving a plurality of assessment packets (*a gateway server for receiving a plurality of self-describing data packets in a voice data stream on a receiving end, see claim 11*);

means for determining at least one network parameter based on the assessment packets (*a voice port in said gateway server for acquiring a voice quality measurement from said self-describing data packets received by said gateway server, see claim 11*);

means for selecting one of a plurality of codecs using the at least one network parameters (*dynamically changing codec algorithms, claim 11*); and

means for communicating media using the selected codes (*dynamically changing codec algorithms in response to said voice quality measurement on a packet-to-packet basis for each packet in said plurality of self-describing data packets for optimizing the voice quality of the information contained in each said packet, and a voice port in said gateway server for acquiring a voice quality measurement from said self-describing data packets received by said gateway server, see claim 11*).

Vargo fails to explicitly disclose the selecting one of the plurality of codes comprises retrieving pre-stored codec selection data that associates that at least one

network parameter to a corresponding codec; and selecting the corresponding codec using the pre-stored codec selection data.

Novaro, on the other hand, discloses providing a lookup table to determining which codecs should be employed between at least two radio stations in order to maximized the quality of the communication link (see col. 2 line 47 to col. 3 line 11).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made provides the teaching of Novaro in the system taught by Vargo for selecting the codecs based on the currently communication channel condition provides maximizing the quality of the communication link.

Regarding claim 37, Vargo discloses the assessment packets comprise a plurality of real-time transfer control protocol (RTCP) packets without media (see col. 10 lines 37-43; and col. 11 lines 20-25).

Regarding claim 38, Vargo discloses the at least one network parameter comprises packet loss and delay (*the architecture thereby seeks to attain the best speech quality and lowest latency given the level of data loss over the Internet detected by the system, see col. 2 lines 57-60*).

Regarding claim 39, Vargo discloses the media comprises voice information; and the at least one network parameter comprises a network parameter that impacts voice quality experienced by a user participating in the communication session (**see claim 1**).

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Claims 10, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Vargo-Novaro in view of Sawada et al. (US 6,512,924), hereinafter Sawada.

Regarding claims 10, 33, the combination of Vargo-Novaro fails to disclose selecting comprises negotiating with the remote endpoint to select a codec.

Sawada, on the other hand, discloses negotiating with the remote endpoint to select a codec (between the mobile station and database in the network side, see claim 1).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made includes the teaching of Sawada in the system taught by Vargo-Novaro especially negotiating with the remote endpoint to select a codec in order to maintain the consistency of the data between the user side and the network side –thus reducing call loss in a mobile communication.

Claims 12, 23, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Vargo-Novaro in view of Lo et al. (US 6,798,786), hereinafter Lo.

Regarding claims 12, 23, and 35, the combination of Vargo-Novaro fails to explicitly disclose the codecs implement at least a selected one of a G.711, G.723, and G.729 voice compression standard.

Lo, on the other hand, discloses the codecs of the gateway implement at least a selected one of a G.711, G.723, and G.729 voice compression standard (see col. 4

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lines 54-67). It should be note that these standard are ITU-T recommendation for voice algorithms.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to causes the end point of Vargo-Novaro to implement at least a selected one of a G.711, G.723, and G.729 voice compression standard in order to comply with the ITU-T recommendation.

***Allowable Subject Matter***

Claims 6-9, 18-21, 29-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 41-43 are allowed.

***Conclusion***

**Any response to this action should be mailed to:**

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083**. The examiner can normally be reached on Monday-Tuesday from 8:00 A.M. to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor **Chau Nguyen**, can be reach on **(571) 272-3126**. The fax phone number for this group is **(703) 872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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**Bob A. Phunkulh**

A handwritten signature in black ink, appearing to read "Bob A. Phunkulh", with a horizontal line drawn underneath the first part of the signature.

TC 2600

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April 18, 2005

**BOB PHUNKULH  
PRIMARY EXAMINER**